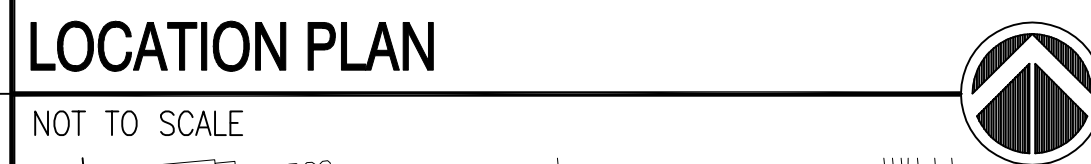


D

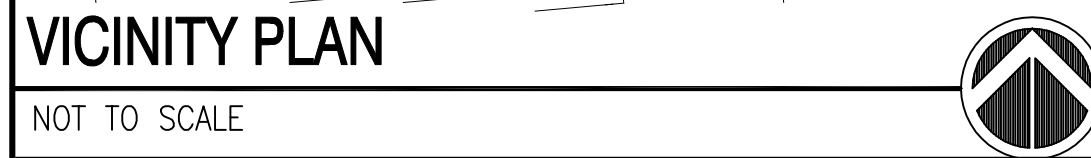
C

CB

B



A



ABBREVIATIONS			
B/W	BETWEEN	LONG	LONGITUDINAL
☐	CENTERLINE	MAX	MAXIMUM
CMU	CONC. MASONRY UNIT	MIN	MINIMUM
CONC	CONCRETE	MLW	MEAN LOW WATER
∅ or DIA	DIAMETER	PL	PLATE
DIM	DIMENSION	MPH	MILES PER HOUR
ELEV	ELEVATION	OC	ON CENTER
EXIST	EXISTING	PSF	POUNDS PER SQ FO
GALV	GALVANIZED	PSI	POUNDS PER SQ INC
KIPS	1000 POUNDS	REINF	REINFORCING , -ME
KSI	KIPS PER SQ INCH	SQ	SQUARE
LB	POUNDS	TYP	TYPICAL
		VERT	VERTICAL
		W/	WITH

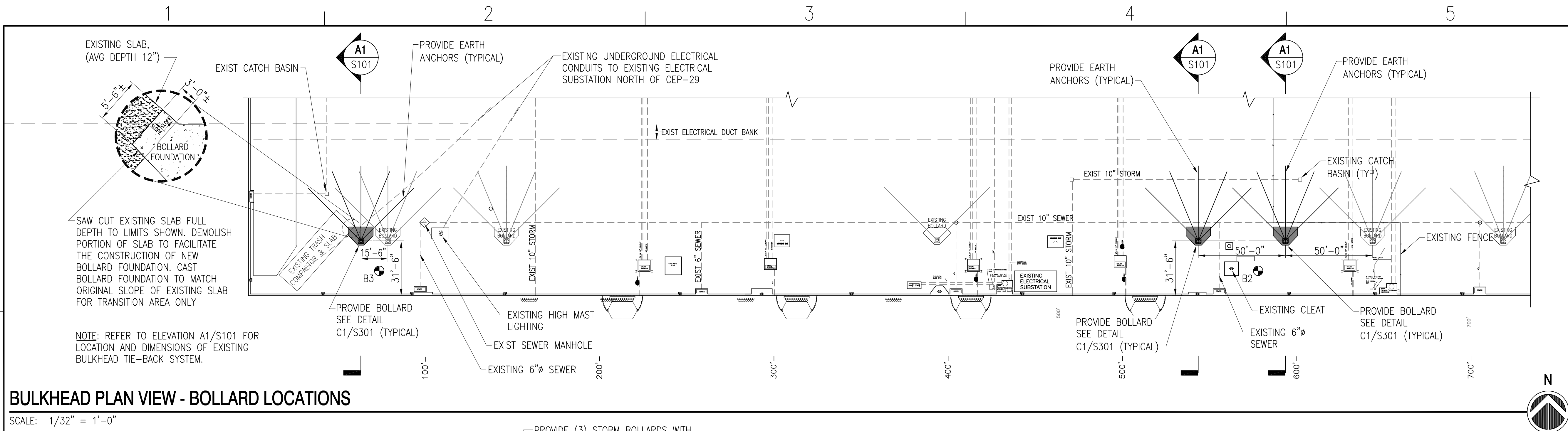
3

4

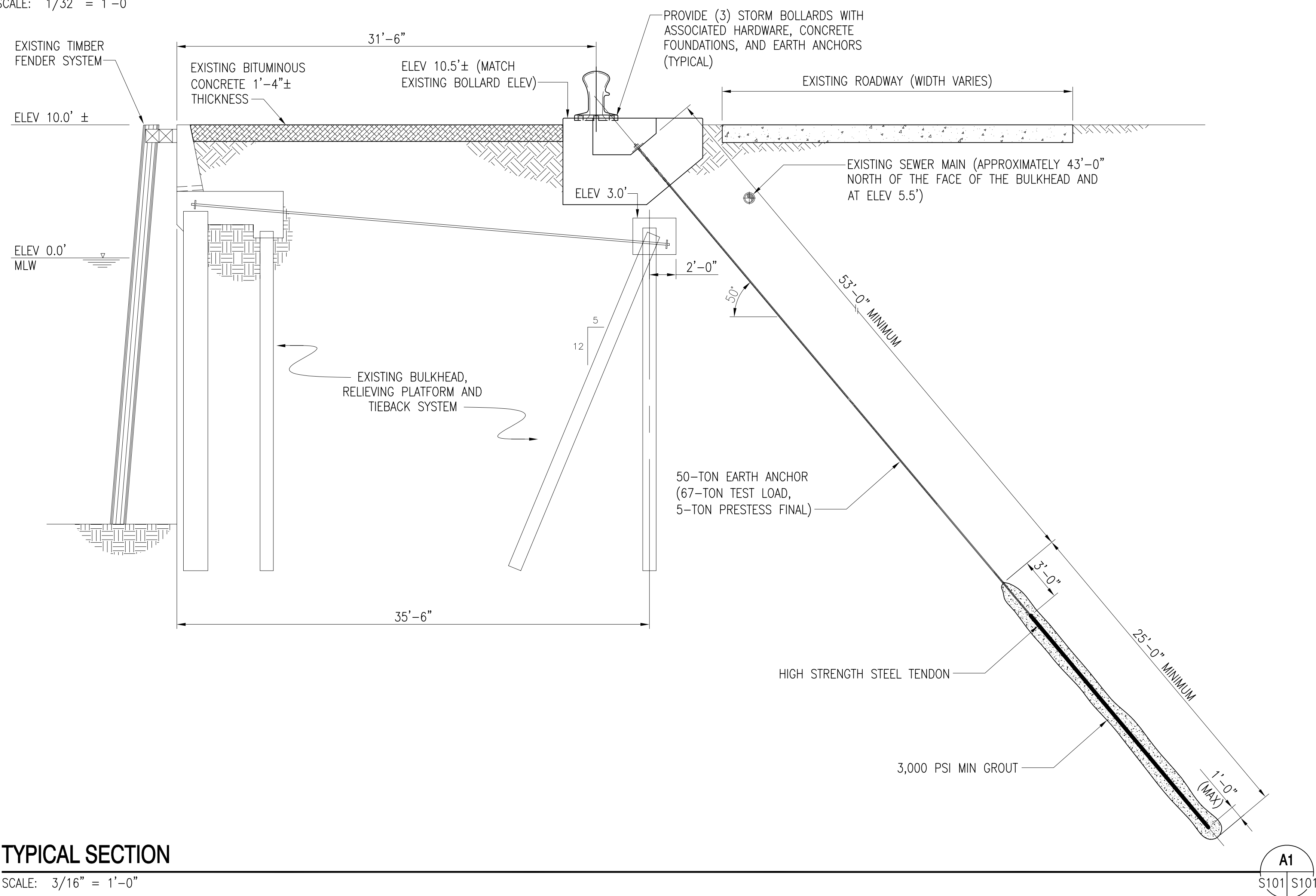
C

B

A

**BULKHEAD PLAN VIEW - BOLLARD LOCATIONS**

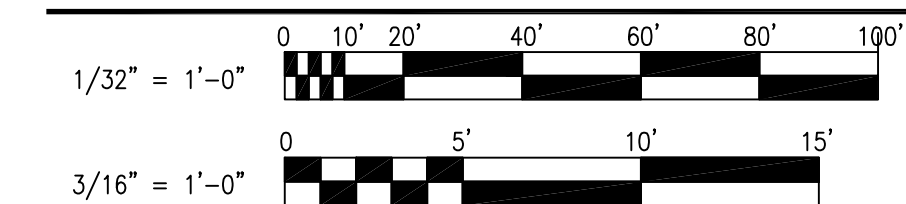
SCALE: 1/32" = 1'-0"

**TYPICAL SECTION**

SCALE: 3/16" = 1'-0"

GENERAL NOTES

- BOLLARD: 95-TON.
- UNDER NO CIRCUMSTANCES SHALL REPRODUCTION OF CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS.
- ALL CONCRETE USED FOR CAST-IN-PLACE CONSTRUCTION SHALL BE 5,000 PSI, AIR-ENTRAINED AND SHALL CONFORM TO ACI 318-99. CEMENT SHALL BE TYPE II.
- ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER. CONCRETE COVER OVER REINFORCING SHALL BE 2" CLEAR FOR THE SLAB AND 3" CLEAR FOR THE PILE CAPS UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL BE DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT CONFORMING ASTM A-615, GRADE 60.
- REINFORCING STEEL SHALL BE LAPPED 1.3 X DEVELOPMENT LENGTH (Ld) AT SPLICES AND CORNERS.
- ALL REINFORCEMENT SHALL BE HELD SECURELY IN PLACE TO PREVENT DISLODGMET DURING THE PLACEMENT OPERATIONS.
- ALL HOLES FOR EARTH ANCHORS SHALL BE SLEEVED USING GALVANIZED PIPE. PIPE SIZE TO FIT EARTH ANCHOR.
- ENSURE THAT THE PLACEMENT AND ALIGNMENT OF PIPE SLEEVES AND FORMATION OF THE FOUNDATION POCKET ALLOWS FOR THE PROPER INSTALLATION AND AND OPERATION OF EARTH ANCHORS. THE DIMENSIONS AND INFORMATION SHOWN ON THESE DRAWINGS ARE FOR BIDDING PURPOSES ONLY AND DIMENSIONAL ADJUSTMENT MAY BE MADE, DEPENDENT UPON THE CONTRACTING OFFICERS APPROVAL, TO FACILITATE THE PROPER CONSTRUCTION OF THE MOORING BOLLARDS.

GRAPHIC SCALES

APPROVED		DATE	SYN.	DESCRIPTION
B. WORTON		7/3/03		
ACTIVITY - SATISFACTORY TO				
DATE				
APPROVED				
FOR C.O. COMMANDER, NAVFAC		7/25/03		
DATE				
A/E		PWC		
DESIGN		ELT		
DRAWN		ELT		
REVIEW		ASP		
QC				
CHIEF ARCH./ ENGR.				
PROJECT MANAGER		E. J. ALLEN		
FIRE PROTECTION				
DIVISION DIRECTOR		D. FIET		
DEPARTMENT HEAD				
NAVAL FACILITIES ENGINEERING COMMAND				
NAVY PUBLIC WORKS CENTER				
NAVAL STATION				
NAVAL STATION				
PROVIDE MOORING BOLLARDS				
PLAN VIEW AND SECTION				
CODE ID. NO. 80091		SIZE	D	
SCALE: AS NOTED				
PWC DWG. NO. 16,623 A				
JOB ORDER NO. ACWBW5				
SPEC. NO. 05-03-4466				
CONSTR. CONTR. NO.				
N62470-03-C-4466				
NAVFAC DRAWING NO.				
4,490,534				
SHEET 2 OF 3				
S-101				

